

AMENDMENTS TO THE CLAIMS

The following is a complete listing of the claims that replaces all previous versions:

1. (Previously Presented) A valve assembly comprising:

a first check valve structured to permit fluid flow therethrough in response to application of positive pressure at an inlet of said first check valve, further comprising an outlet of said first check valve being in fluid communication with at least a portion of a fluid system, wherein the application of positive pressure from an inlet/outlet port at a common refill/evacuation location causes fluid to flow from the common refill/evacuation location through said first check valve into said fluid system;

a second check valve having an outlet in fluid communication with said inlet of said first check valve, said second check valve being structured to permit fluid flow therethrough in response to application of negative pressure at said outlet of said second check valve, further comprising an inlet of said second check valve being in fluid communication with at least a portion of said fluid system, wherein the application of negative pressure from the inlet outlet port at the common refill/evacuation location causes fluid to flow from said fluid system through said second check valve into the common refill/evacuation location, and wherein said outlet of said first check valve is in fluid communication with said inlet of said second check valve;

the inlet/outlet port in direct fluid communication with said inlet of said first check valve and in direct fluid communication with said outlet of said second check valve at the common refill/evacuation location;

at least one quick disconnect connection operatively associated with said inlet/outlet port; and,

a flow control valve in direct fluid communication with the inlet/outlet port.

2. (Original) The valve assembly of Claim 1, wherein said fluid system portion includes at least a pre-filter portion.

3. (Original) The valve assembly of Claim 2, further comprising said pre-filter portion of said fluid system being in fluid communication with at least one fluid filter.

4. (Original) The valve assembly of Claim 1, further comprising said second check valve being in fluid communication with at least one fluid reservoir.

5. (Canceled)

6. (Original) The valve assembly of Claim 1, further comprising at least one fluid component in fluid communication with said inlet/outlet port.

7. (Previously Presented) A valve system comprising:

a first valve assembly comprising,

a first check valve structured to permit fluid flow therethrough in response to application of positive pressure at an inlet of said first check valve, further comprising an outlet of said first check valve being in fluid communication with a first portion of a first fluid system, wherein the application of positive pressure from a first inlet/outlet port at a first common refill/evacuation location causes fluid to flow from the first common refill/evacuation location through said first check valve into the first portion of said first fluid system;

a second check valve having an outlet in fluid communication with said inlet of said first check valve, said second check valve being structured to permit fluid flow therethrough in response to application of negative pressure at said outlet of said second check valve, further comprising an inlet of said second check valve being in fluid communication with at least the first portion of said first fluid system, wherein the application of negative pressure from the first inlet/outlet port at the first common refill/evacuation location causes fluid to flow from the first portion of said first fluid system through said second check valve into the first common refill/evacuation location, wherein said outlet of said first check valve is in fluid communication with said inlet of said second check valve;

the first inlet/outlet port in direct fluid communication with said inlet of said first check valve and in direct fluid communication with said outlet of said second check valve at the first common refill/evacuation location; and,

a first flow control valve in direct fluid communication with the first inlet/outlet port;

a second valve assembly comprising,

a third check valve structured to permit fluid flow therethrough in response to application of positive pressure at an inlet of said third check valve, further comprising an outlet of said third check valve being in fluid communication with a second portion of a second fluid system, wherein the application of positive pressure causes from a second inlet/outlet port at a second common refill/evacuation location fluid to flow from the second common refill/evacuation location through said third check valve into the second portion of said second fluid system;

a fourth check valve having an outlet in fluid communication with said inlet of said third check valve, said fourth check valve being structured to permit fluid flow therethrough in response to application of negative pressure at said outlet of said fourth check valve, further comprising an inlet of said fourth check valve being in fluid communication with at least the second portion of said second fluid system, wherein the application of negative pressure from a second inlet/outlet port at the second common refill/evacuation location causes fluid to flow from the second portion of said second fluid system through said fourth check valve into the second common refill/evacuation location, wherein said outlet of said third check valve is in fluid communication with said inlet of said fourth check valve;

the second inlet/outlet port in direct fluid communication with said inlet of said third check valve and in direct fluid communication with said outlet of said fourth check valve at the second common refill/evacuation location;

at least one quick disconnect connection operatively associated with at least one of said first inlet/outlet port and said second inlet/outlet port; and, a second flow control valve in direct fluid communication with the second inlet/outlet port.

8. (Previously Presented) The valve system of Claim 7, wherein at least one of said first portion of said first fluid system and said second portion of said second fluid system includes at least a pre-filter portion.

9. (Original) The valve system of Claim 8, further comprising said pre-filter portion being in fluid communication with at least one fluid filter.

10. (Original) The valve system of Claim 7, further comprising at least one of said second check valve and said fourth check valve being in fluid communication with at least one fluid reservoir.

11. (Canceled)

12. (Original) The valve system of Claim 7, further comprising at least one fluid component in fluid communication with at least one of said inlet/outlet ports.

13. (Previously Presented) The valve system of Claim 7, further comprising:

at least a third valve assembly comprising,

a fifth check valve structured to permit fluid flow therethrough in response to application of positive pressure at an inlet of said fifth check valve, further comprising an outlet of said fifth check valve being in fluid communication with a third portion of a third fluid system, wherein the application of positive pressure from a third inlet/outlet port at a third common refill/evacuation location causes fluid to flow from the third common refill/evacuation location through said fifth check valve into said third fluid system;

a sixth check valve having an outlet in fluid communication with said inlet of said fifth check valve, said sixth check valve being structured to permit fluid flow therethrough in response to application of negative pressure at said outlet of said sixth check valve, further comprising an inlet of said sixth check valve being in fluid communication with at least the third portion of said third fluid system, wherein the application of negative pressure from the third inlet/outlet port at the third common refill/evacuation location causes fluid to flow from the third portion of said third fluid system through said sixth check valve into the third common refill/evacuation location, wherein said outlet of said fifth check valve is in fluid communication with said inlet of said sixth check valve;

the third inlet/outlet port in direct fluid communication with said inlet of said fifth check valve and in direct fluid communication with said outlet of said sixth check valve at the third common refill/evacuation location; and,

a third flow control valve in direct fluid communication with the third inlet/outlet port.

14. (Previously Presented) The valve system of Claim 13, wherein at least one of said first portion of said first fluid system, said second portion of said second fluid system, and said third portion of said third fluid system includes at least a pre-filter portion.

15. (Original) The valve system of Claim 14, further comprising said pre-filter portion being in fluid communication with at least one fluid filter.

16. (Original) The valve system of Claim 13, further comprising at least one of said second, fourth and sixth check valves being in fluid communication with at least one fluid reservoir.

17. (Canceled).

18. (Original) The valve system of Claim 13, further comprising at least one fluid component in fluid communication with at least one of said inlet/outlet ports.

Claims 19-36 (Canceled).

37. (Previously Presented) A module comprising:
a first valve assembly comprising,

a first check valve structured to permit fluid flow therethrough in response to application of positive pressure at an inlet of said first check valve, further comprising an outlet of said first check valve being in fluid communication with a first portion of a first fluid system, wherein the application of positive pressure from a first inlet/outlet port at a first common refill/evacuation location causes fluid to flow from the first common refill/evacuation location through said first check valve into said first fluid system;

a second check valve having an outlet in fluid communication with said inlet of said first check valve, said second check valve being structured to permit fluid flow therethrough in response to application of negative pressure at said outlet of said second check valve, further comprising an inlet of said second check valve being in fluid communication with at least the first portion of said first fluid system, wherein the application of negative pressure from the first inlet/outlet port at the first common refill/evacuation location causes fluid to flow from the first portion of said first fluid system through said second check valve into the first common refill/evacuation location, and wherein said outlet of said first check valve is in fluid communication with said inlet of said second check valve;

the first inlet/outlet port in direct fluid communication with said inlet of said first check valve and in direct fluid communication with said outlet of said second check valve at the first common refill/evacuation location; and,

a first flow control valve in direct fluid communication with the first inlet/outlet port;

at least a second valve assembly comprising,

a third check valve structured to permit fluid flow therethrough in response to application of positive pressure at an inlet of said third check valve, further comprising an outlet of said third check valve being in fluid communication with a second portion of a second fluid system, wherein the application of positive pressure from a second inlet/outlet port at a second common refill/evacuation location causes fluid to flow from the second common refill/evacuation location through said third check valve into said second fluid system;

a fourth check valve having an outlet in fluid communication with said inlet of said third check valve, said fourth check valve being structured to permit fluid flow therethrough in response to application of negative pressure at said outlet of said fourth check valve, further comprising an inlet of said fourth check valve being in fluid communication with at least the second portion of said second fluid system, wherein the application of negative pressure from a second inlet/outlet port at the second common refill/evacuation location causes fluid to flow from the second portion of said second fluid system through said fourth check valve into the second common refill/evacuation location, wherein said outlet of said third check valve is in fluid communication with said inlet of said fourth check valve;

the second inlet/outlet port in direct fluid communication with said inlet of said third check valve and in direct fluid communication with said outlet of said fourth check valve at the second common refill/evacuation location;

a second flow control valve in direct fluid communication with the second inlet/outlet port;

at least one quick disconnect connection operatively associated with at least one of said inlet/outlet ports; and,
said first and second valve assemblies being coupled together to form said module.

38. (Previously Presented) The module of Claim 37, wherein at least one of said first portion of said first fluid system and said second portion of said second fluid system includes at least a pre-filter portion.

39. (Original) The module of Claim 38, further comprising said pre-filter portion being in fluid communication with at least one fluid filter.

40. (Original) The module of Claim 37, further comprising at least one of said second check valve and said fourth check valve being in fluid communication with at least one fluid reservoir.

Claims 41-43 (Canceled).

44. (Original) The module of Claim 37, further comprising at least one fluid component in fluid communication with at least one of said inlet/outlet ports.

Claims 45-54 (Canceled)

55. (Previously Presented) A method of performing at least one fluid operation in a fluid system, said method comprising:

structuring a first check valve to permit fluid flow therethrough in response to application of positive pressure at an inlet of said first check valve, further structuring said first check valve with an outlet in fluid communication with a first portion of a fluid system, wherein the application of positive pressure from an inlet/outlet port at a common refill/evacuation location causes fluid to flow from the common refill/evacuation location through said first check valve into said fluid system;

structuring a second check valve having an outlet in fluid communication with said inlet of said first check valve, further structuring said second check valve to permit fluid flow therethrough in response to application of negative pressure at said outlet of said second check valve, further structuring said second check valve such that said second check valve comprises an inlet of said second check valve being in fluid communication with at least the first portion of said fluid system, wherein the application of negative pressure from the inlet/outlet port at the common refill/evacuation location causes fluid to flow from said fluid system through said second check valve into the common refill/evacuation location, and further structuring said second valve such that said inlet of said second check valve is in fluid communication with said outlet of said first check valve;

positioning the inlet/outlet port in direct fluid communication with said inlet of said first check valve and in direct fluid communication with said outlet of said second check valve at the common refill/evacuation location;

operatively associating at least one quick disconnect with said inlet/outlet port;
and,
positioning a flow control valve in direct fluid communication with the
inlet/outlet port.

56. (Original) The method of Claim 55, wherein said first portion of a fluid system includes at least a pre-filter portion.

57. (Original) The method of Claim 56, further comprising structuring said pre-filter portion of said fluid system for fluid communication with at least one fluid filter.

58. (Original) The method of Claim 55, further comprising positioning said second check valve in fluid communication with at least one fluid reservoir.

59. (Canceled)

60. (Original) The method of Claim 55, further comprising operatively associating at least one fluid component in fluid communication with said inlet/outlet port.

61. (Original) The method of Claim 55, further comprising applying positive pressure at said common refill/evacuation location.

62. (Original) The method of Claim 61, further comprising applying negative pressure at said common refill/evacuation location after said applying positive pressure at said common refill/evacuation location.

63. (Original) The method of Claim 61, further comprising performing at least one fluid refill operation by said applying positive pressure at said common refill/evacuation location.

64. (Original) The method of Claim 61, further comprising performing at least one filter purge operation by said applying positive pressure at said common refill/evacuation location.

65. (Original) The method of Claim 55, further comprising applying negative pressure at said common refill/evacuation location.

66. (Original) The method of Claim 65, further comprising applying positive pressure at said common refill/evacuation location after said applying negative pressure at said common refill/evacuation location.

67. (Original) The method of Claim 65, further comprising performing at least one fluid evacuation operation by said applying negative pressure at said common refill/evacuation location.

68. (Previously Presented) A method of performing a fluid operation, said method comprising:

structuring a first check valve to permit fluid flow therethrough in response to application of positive pressure at an inlet of said first check valve, further structuring said first check valve with an outlet in fluid communication with a portion of a fluid system, wherein the application of positive pressure from an inlet/outlet port at a common refill/evacuation location causes fluid to flow from the common refill/evacuation location through said first check valve into said fluid system;

structuring a second check valve having an outlet in fluid communication with said inlet of said first check valve, further structuring said second check valve to permit fluid flow therethrough in response to application of negative pressure at said outlet of said second check valve, further structuring said second check valve such that said second check valve comprises an inlet of said second check valve being in fluid communication with at least a portion of said fluid system, wherein the application of negative pressure from the inlet/outlet port at the common refill/evacuation location causes fluid to flow from said fluid system through said second check valve into the common refill/evacuation location, and further structuring said second valve such that said inlet of said second check valve is in fluid communication with said outlet of said first check valve;

positioning the inlet/outlet port in direct fluid communication with said inlet of said first check valve and in direct fluid communication with said outlet of said second check valve at the common refill/evacuation location; and,

positioning a flow control valve in direct fluid communication with the inlet/outlet port;

operatively associating at least one quick disconnect with the inlet/outlet port;

applying positive pressure from the inlet/outlet port at said common refill/evacuation location to purge at least a pre-filter portion of said portion of a fluid system;

applying negative pressure from the inlet/outlet port at said common refill/evacuation location to evacuate fluid through said inlet/outlet port; and,

applying positive pressure from the inlet/outlet port at said common refill/evacuation location to refill at least one fluid through at least said portion of a fluid system.

69. (Original) The method of Claim 68, wherein said portion of a fluid system includes at least one fluid filter.

Claims 70-80 (Canceled).

81. (Previously Presented) A valve assembly comprising:
a first check valve structured to permit fluid flow therethrough in response to application of positive pressure at an inlet of said first check valve, further comprising an outlet of said first check valve being in fluid communication with at least a portion of a fluid

system, wherein the application of positive pressure from an inlet/outlet port at a common refill/evacuation location causes fluid to flow from the common refill/evacuation location through said first check valve into said fluid system;

a second check valve having an outlet in fluid communication with said inlet of said first check valve, said second check valve being structured to permit fluid flow therethrough in response to application of negative pressure at said outlet of said second check valve, further comprising an inlet of said second check valve being in fluid communication with at least a portion of said fluid system, wherein the application of negative pressure from the inlet/outlet port at the common refill/evacuation location causes fluid to flow from said fluid system through said second check valve into the common refill/evacuation location, and wherein said outlet of said first check valve is in fluid communication with said inlet of said second check valve;

the inlet/outlet port in direct fluid communication with said inlet of said first check valve and in direct fluid communication with said outlet of said second check valve at the common refill/evacuation location;

a flow control valve in direct fluid communication with the inlet/outlet port;

at least one quick disconnect operatively associated with said inlet/outlet port; and,

a pre-filter portion of said fluid system being in fluid communication with at least one fluid filter.